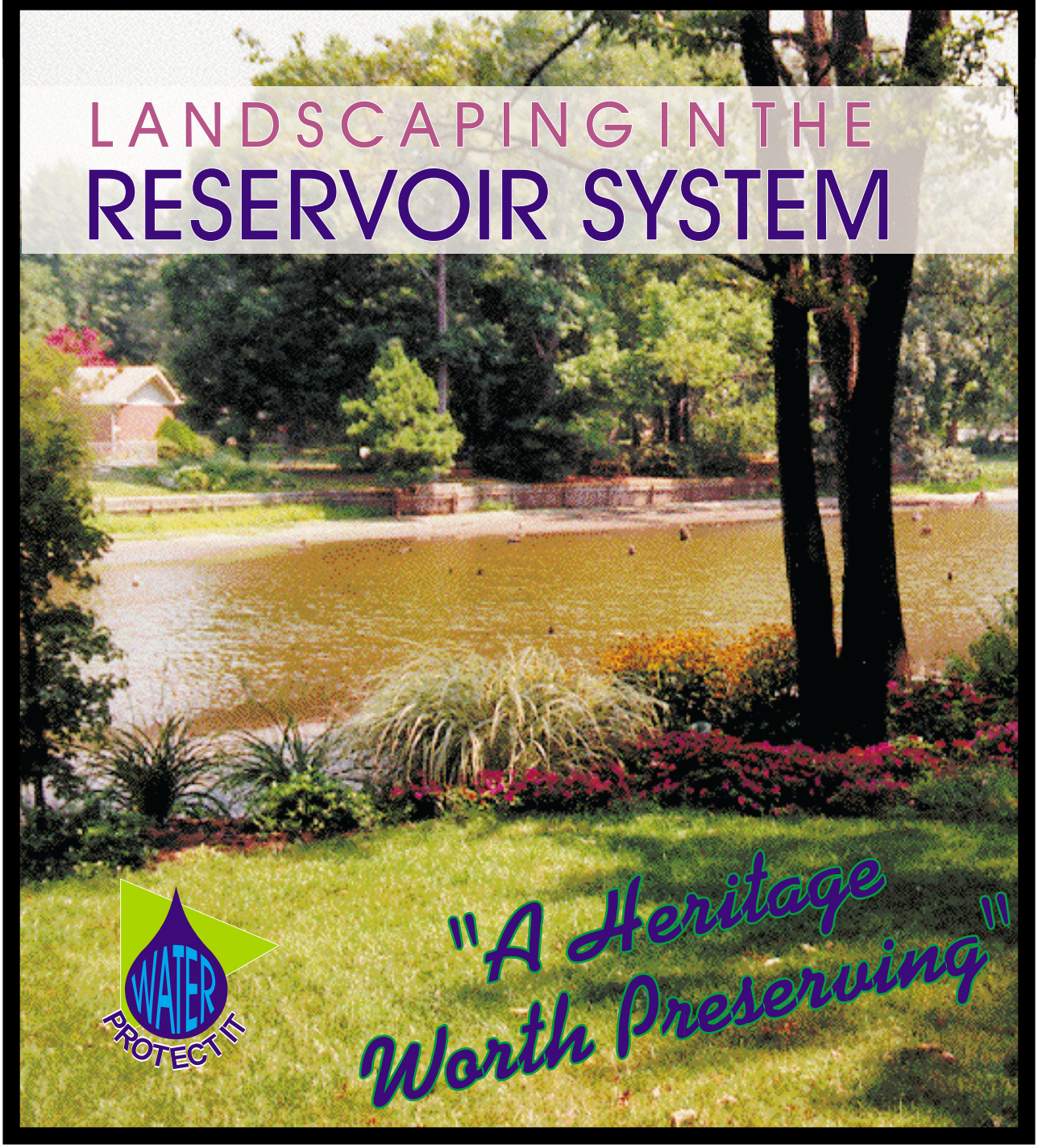
City of Norfolk



LANDSCAPING IN THE RESERVOIR SYSTEM

WATER PROTECT IT

"A Heritage Worth Preserving"

Welcome to ...

The Norfolk Reservoir System

The Norfolk Water System owns and maintains 10 constructed reservoirs located in four southside Hampton Roads cities and Isle of Wight County. These reservoirs are grouped into two major systems. The Intown Reservoir System is made up of Lake Whitehurst, Lake Wright, Lake Taylor, Little Creek Reservoir, Lake Lawson, Lake Smith and Stumpy Lake. The Western Reservoir System includes Lake Burnt Mills, Lake Prince and the Western Branch Reservoir.

The responsibility for the protection and management of these reservoir systems lies with the Norfolk Department of Utilities. Rules, regulations, and policies have been enacted to protect the water quality of the lakes and the public property surrounding them, and to ensure enjoyment of the reservoir system by all citizens.

The two reservoir systems are vital in supplying drinking water to 700,000 people in Hampton Roads. Currently, the Norfolk Department of Utilities supplies treated drinking water to the citizens of Norfolk and Virginia Beach, parts of the City of Chesapeake, and all Department of Defense installations in Norfolk and Virginia Beach.

In addition to providing most of southside Hampton Roads with fresh drinking water, our lakes are a regional asset valued by residents enjoying their scenic beauty, teachers using them as an environmental education resource, and fishermen and canoers who appreciate recreation on the lakes.

This brochure provides information to help watershed residents maintain their landscapes without endangering our drinking water. For more information, please contact the Division of Water Resources at 441-5727.

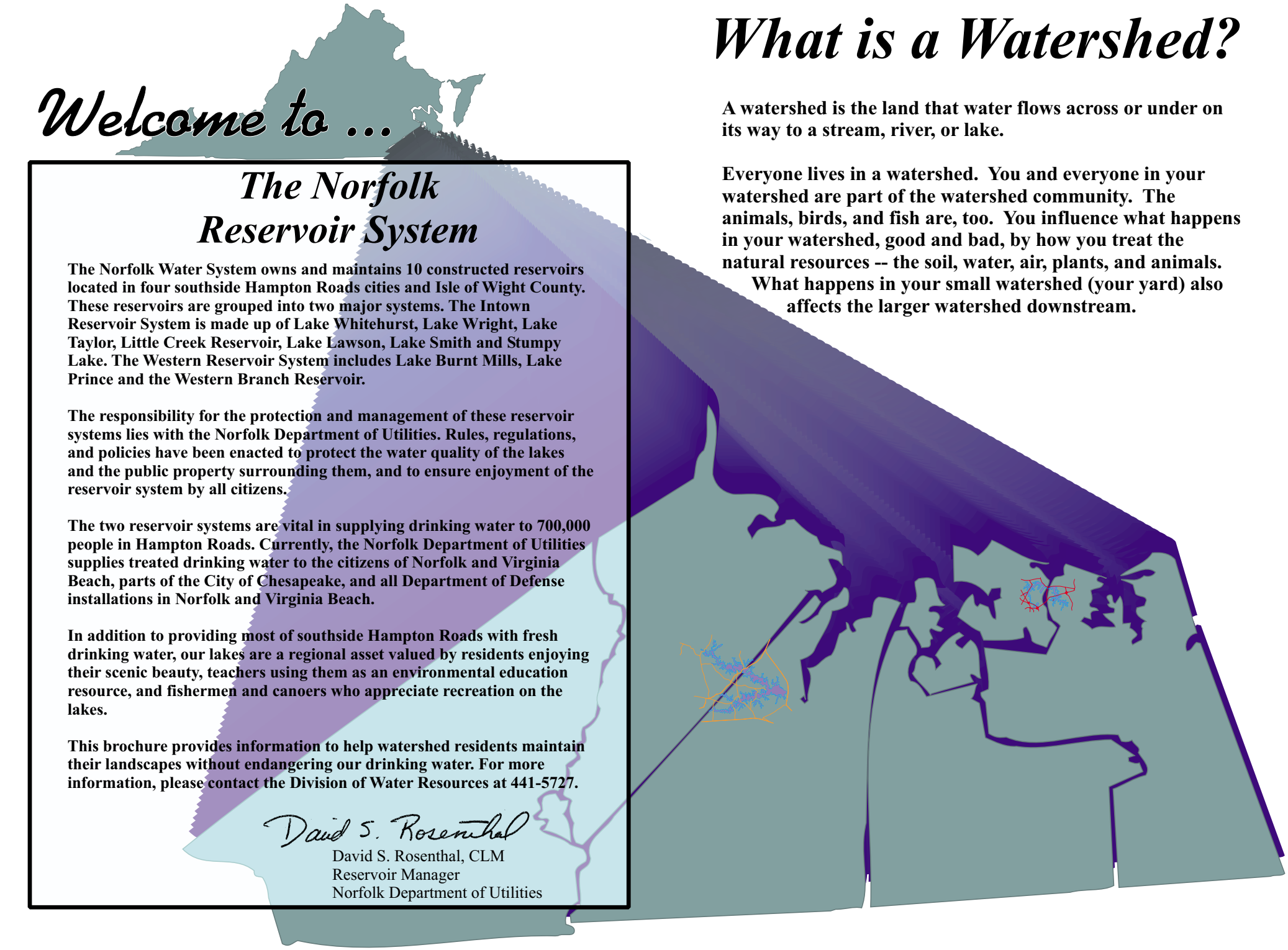
David S. Rosenthal

David S. Rosenthal, CLM
Reservoir Manager
Norfolk Department of Utilities

What is a Watershed?

A watershed is the land that water flows across or under on its way to a stream, river, or lake.

Everyone lives in a watershed. You and everyone in your watershed are part of the watershed community. The animals, birds, and fish are, too. You influence what happens in your watershed, good and bad, by how you treat the natural resources -- the soil, water, air, plants, and animals. What happens in your small watershed (your yard) also affects the larger watershed downstream.



Herbicides

A properly-mowed, limed and fertilized lawn should eliminate most weeds. Instead of undertaking a complicated and expensive chemical treatment program, try using recommended lawn care practices for a year or two to increase the quality of your turf naturally. When using herbicides, adhere to the instructions on the label for use and disposal.

Soil testing

Stop by your Extension Service office or any public library in Norfolk or Virginia Beach to obtain a free soil testing kit. Gather the soil sample according to the instructions and mail it along with a check to Virginia Tech Soil Testing Laboratory. You will be sent a report which will provide you with instructions on improving your lawn. In particular, the report will indicate whether you already have sufficient phosphorus fertilizer. Allow 2 to 4 weeks for the test to be analyzed and returned to you. Check with your lawn care company to see if they will gather the soil sample and send it to the laboratory for you.

Aeration

Powered aerators or coring machines remove cores of soil and leave small holes in the lawn. This loosens compacted soil, increasing the availability of water and nutrients to the roots. It also enhances oxygen levels in the soil and improves favorable conditions for earthworm survival. Aeration should be done in the fall in accordance with your fall fertilization schedule. Lawn service companies provide this service or you can rent an aerator.

Mowing

Proper mowing techniques can decrease the need for applying fertilizers, pesticides and water. Mowing each type of grass at its proper height discourages weed growth and increases drought tolerance. Tall fescue lawns should be mowed to 2 to 3 inches, while Kentucky bluegrass and ryegrass lawns should be cut between 1-1/2 and 2-1/2 inches. Lawns should be mowed frequently enough so that no more than one-third of the grass blade is removed in any mowing. Cutting the grass too short discourages root growth and increases the need for watering. Also, short grass clippings should be left on the lawn to reduce the need for adding fertilizer and to reduce yard wastes. Mower blades should be kept sharp to cut cleanly. Raggedly cut grass is more susceptible to disease and insects.

FERTILIZER

You need much less fertilizer than you think. Don't exceed one pound of nitrogen per 1,000 square feet in a single application. After all, you can always fertilize again later if necessary.

Use a no-phosphorus fertilizer formula. Typical Virginia soils have enough phosphorus to provide for a healthy lawn. Also, look for a low-phosphorus-to-nitrogen ratio. A high percentage of the nitrogen should be water insoluble. This means that the fertilizer continues to release slowly despite the presence of water.

RECYCLING TIPS

Leave grass clippings on the lawn to recycle nutrients.

A compost heap makes yard waste useful again as soil conditioner.

Take used oil to specified collection centers.

Follow local instructions for hazardous waste materials disposal.

Use composted leaves and wood mulch around plants to reduce outdoor water use.

Establishing a Lawn

When starting a lawn from scratch, test the soil to determine whether fertilizer is needed, what formula to use, how much to apply and whether the soil needs lime. It is best to seed in the fall. The newly planted lawn should be mulched to prevent erosion and washing away of seeds and nutrients. Mist frequently to ensure germination. Use a sprinkler instead of a hand-held garden hose.

Insecticides

Blanket application of some insecticides may kill beneficial organisms which prey on harmful insects. In particular, insecticides will kill parasites which have been known to control gypsy moths. Frequent insecticide applications may predispose your lawn to attacks by other pests. Avoid dousing everything with chemicals. Follow instructions on the insecticide label for use and disposal. Buy no more than you really need. For pest identification and control recommendations, call the Agriculture Information Center.

Plants that Work For The Watershed

Below is a list of plants -- both deciduous and evergreen that will grow in this area and are beneficial to the watershed. This is not a complete list, but will give you a starting point when landscaping for the watershed.

Ground Cover:

Deciduous
- Hosta Species
- Lamium maculatum
- Begonia evansiana
- Sedum x 'Autumn Joy'

Evergreen
- Juniper species
- Liriope species
- Vinca minor - periwinkle

Vines:

Deciduous
- Campsis redicans - trumpet creeper
- Clematis species
- Hydrangea anomala petiolaris - climbing hydrangea

Evergreen
- Bignonia capreolata - cross Vine
- Gelsimiun sempervirens - Carolina jasminum
- Rosa banksiae - Lady Banks Rose

Shrubs:

Deciduous
- Azalea calendulaceae - flame azalea
- Berbis thunbergi - Japanese barberry
- Buddleia davidii - Butterfly bush
- Clethra alnifolia - sweet pepperbush
- Forsythia intermedia
- Hydrangea species

Evergreen
- Abelia grandiflora
- Aucuba japoica
- Camellia
- Myrica cerifera - southern wax myrtle
- Viburnum species

Trees:

Evergreen
- Cedrus deodara
- Magnolia grandiflora 'Little Gem' - dwarf magnolia
- Pinus taeda - loblolly pine
- Quercus virginiana - live oak

Deciduous
- Cercis canadensis - Redbud
- Cercis chinensis - Chinese Redbud
- Cornus florida - Dogwood
- Cornus kousa - Korean dogwood
- Lagerstroemia indica - crepe myrtle
- Quercus phellos - willow oak

Further Information

The following brochures are available from the Virginia Cooperative Extension, (757) 427-4769. When ordering, be sure to request by brochure number.

Planting Shrubs #426-701

Planting Trees #426-702

Making Compost from Yard Waste #426-703

Using Compost in Your Landscape #426-704

Integrated Pest Management for Vegetable Gardens #426-708

Pruning Deciduous Trees and Shrubs #426-709

Building Healthy Soil #426-711

Conserving Energy with Landscaping #426-712

Creating a Water-Wise Landscape #426-713

Fertilizing Trees and Shrubs #426-715

Maintaining Lawns #426-717

Establishing Lawns #426-718

Selecting Turfgrass #426-719

Fertilizing Lawns #426-720

Home Landscape Practices to Protect Water Quality #426-723

Please, Don't Feed Our Lakes

Protecting the quality of drinking water is everyone's responsibility. Every action around the home, from automobile maintenance to lawncare, can have an effect on the drinking water supply -- our lakes. Finding out more about the steps outlined in this brochure is a great way to have a beautiful lawn while helping to protect the watershed.

Before purchasing any of the plants listed at left, be sure to consult your nursery. A trained professional can help you select those plants that will grow best on your property.

Protecting Norfolk's reservoir system is everyone's responsibility. How you care for your lawn can have an effect on the quality of water in our reservoirs.

The area that drains into a body of water is called a watershed. Anything poured onto the ground in a watershed eventually makes its way into the drinking water source. This has presented challenges to the Norfolk Department of Utilities whose job it is to remove impurities and keep the drinking water safe for 700,000 people.

There are many things residents can do to help protect the watershed and preserve the reservoirs. Always take used motor oil to an official disposal site. Do not over-fertilize your lawn, and use a low- or non-phosphorus fertilizer. Do not pour hazardous fluids down city storm drains -- that's the fast route to the reservoirs.

Avoid dumping anything into the water. Remember, ***what you dump, you may drink.***

For more information about protecting your reservoirs, call 441-5678.

City of Norfolk
Division of Water Resources
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